

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) An integration server system comprising:
2 a database schema configured to store a set of data object instances;
3 a metadata model representing a configuration of the set of data object instances
4 in the database schema;
5 a model application programming interface adapted to provide a client application
6 with access to the set of data object instances; and
7 a metadata application programming interface adapted to provide a client
8 application with access to the set of data object instances via the metadata model,
9 wherein the database schema includes a sequence attribute adapted to preserve an
10 ordered association between the set of data object instances, such that an intermediate sequence
11 attribute instance has a random value between a pair of values of a pair of adjacent sequence
12 attribute instances, whereby the client application and any additional application are able to
13 concurrently alter the ordered association using different random values for different data object
14 instances.
- 1 2. (Previously Presented) The integration server system of claim 1, wherein
2 the database schema includes a table having a plurality of rows and columns adapted to store the
3 set of data object instances; and
4 the metadata model includes a representation of the table.
- 1 3. (Previously Presented) The integration server system of claim 1, wherein
2 the model application programming interface is adapted to access the set of data object instances
3 via the metadata application programming interface.
- 1 4. (Canceled)

1 5. (Currently Amended) The integration server system of claim [[4]] 1,
2 wherein the intermediate sequence attribute instance has a floating point value.

1 6. (Previously Presented) The integration server system of claim 1, wherein
2 the database schema is adapted to alternately store an instance of a string-valued attribute of the
3 set of data object in a first data-type or a second data-type in response to the length of the
4 instance of the string-valued attribute.

1 7. (Previously Presented) The integration server system of claim 6, wherein
2 the first data-type is a fixed-length data structure having a predetermined size and adapted to
3 store the instance of the string-valued attribute in response to the instance of the string-valued
4 attribute having a length less than the predetermined size, and wherein the second data-type is a
5 variable length data structure adapted to store the instance of the string-valued attribute in
6 response to the instance of the string-valued attribute having a length greater than the
7 predetermined size.

1 8. (Previously Presented) The integration server system of claim 7, wherein
2 the model application programming interface is adapted to receive the instance of the string-
3 valued attribute from a client program, to determine the length of the instance of the string-
4 valued attribute, and to direct the instance of the string-valued attribute to either the first data-
5 type or the second data-type in response to the length of the instance of the string-valued
6 attribute.

1 9. (Previously Presented) The integration server system of claim 8, wherein
2 the first data-type is associated with a first column of a table of the database schema, and the
3 second data-type is associated with a second column of the table of the database schema.

1 10. (Previously Presented) The integration server system of claim 1, wherein
2 the database schema includes a database constraint adapted to ensure that the set of data object
3 instances include a set of valid attribute values.

1 11. (Previously Presented) The integration server system of claim 10, wherein
2 the database schema includes a class type attribute identifying each of the set of data object
3 instances as a member of at least one of a plurality of classes.

1 12. (Previously Presented) The integration server system of claim 11, wherein
2 the database constraint is conditioned on the value of the class type attribute.

1 13. (Previously Presented) The integration server system of claim 10, wherein
2 the database constraint is a "not null" constraint.

1 14. (Previously Presented) The integration server system of claim 10, wherein
2 the database constraint is an "arc" constraint.

1 15. (Previously Presented) The integration server system of claim 1, wherein
2 the model application programming interface includes an association balance method adapted to
3 balance an association attribute of the set of data object instances.

1 16. (Previously Presented) The integration server system of claim 1, further
2 including a generator adapted to create the database schema in response to a model description.

1 17. (Previously Presented) The integration server system of claim 16, wherein
2 the model description defines a data object hierarchy using the unified modeling language.

1 18. (Previously Presented) The integration server system of claim 16, wherein
2 the generator creates an instance of a data object in the database schema.

1 19. (Previously Presented) The integration server system of claim 16, wherein
2 the generator creates a database constraint adapted to ensure that the set of data object instances
3 include a set of valid attribute values.

1 20. (Previously Presented) The integration server system of claim 16, wherein
2 the generator creates a fixed-length data structure having a predetermined size and a variable
3 length data structure adapted to alternately store an instance of a string-valued attribute.

1 Claims 21-24. (Canceled)